

Listing of the Claims:

1. (currently amended) An alloy having favorable fatigue resistance and comprising:
at least 20 weight percent cobalt;
32.7 to 37.3 weight percent nickel;
18.75 to 21.25 weight percent chromium;
8.85 to 10.65 weight percent molybdenum; and
less than 30 ppm nitrogen;
less than 0.7 weight percent titanium;
at least one of at least 0.05 to 0.15 weight percent aluminum, at least 5 to 20 ppm calcium, at least 5 to 50 ppm magnesium, and at least 5 to 50 ppm cerium; and
no greater than 1.05 weight percent iron;
no greater than 0.035 weight percent carbon; and
wherein the alloy includes generally spherical oxide inclusions and is substantially free of titanium nitride and mixed metal carbonitride inclusions.
2. (original) The alloy of claim 1, comprising less than 20 ppm nitrogen.
3. (cancelled)
4. (original) The alloy of claim 1, further comprising less than 0.03 weight percent titanium.
5. (currently amended) The alloy of claim 1, further comprising:
~~no greater than 0.035 weight percent carbon;~~
no greater than 0.18 weight percent manganese;
no greater than 0.17 weight percent silicon;
no greater than 0.020 weight percent phosphorus;

- no greater than 0.015 weight percent sulfur; and
no greater than 0.020 weight percent boron.
6. (currently amended) The alloy of claim 1, comprising:
33.0 to 37.0 weight percent nickel;
19.0 to 21.0 weight percent chromium; and
9.0 to 10.5 weight percent molybdenum [[:]].
7. (Previously presented) The alloy of claim 6, further comprising:
no greater than 0.025 weight percent carbon;
no greater than 0.15 weight percent manganese;
no greater than 0.15 weight percent silicon;
no greater than 0.015 weight percent phosphorus;
no greater than 0.010 weight percent sulfur;
no greater than 1.0 weight percent iron; and
no greater than 0.015 weight percent boron.
8. (original) The alloy of claim 7, comprising less than 20 ppm nitrogen.
9. (cancelled)
10. (original) The alloy of claim 7, further comprising less than 0.03 weight percent titanium.
11. (cancelled)
12. (previously presented) The alloy of claim 1, comprising 0.05 to 0.15 weight percent aluminum.

13. (previously presented) The alloy of claim 1, comprising 5 to 20 ppm calcium.
14. (currently amended) The alloy of claim 1, comprising 5 to 50 ppm weight percent calcium.
15. (previously presented) The alloy of claim 1, comprising 5 to 50 ppm cerium
16. (original) The alloy of claim 1, wherein the alloy does not exhibit significant oxygen embrittlement at grain boundaries.
17. (original) The alloy of claim 1, wherein the alloy is substantially free of titanium.
18. (original) The alloy of claim 1, wherein the alloy is substantially free of nitrogen.
19. (original) The alloy of claim 1, wherein the alloy has an endurance limit greater than 100 ksi.
20. (original) The alloy of claim 1, wherein the alloy qualifies for use in surgical implant applications under ASTM standard specification F 562.
- 21-31. (cancelled)
31. (second) (cancelled)
32. (previously presented) An article of manufacture comprising the alloy of any of claims 1, 2, 4-8, 10, and 12-20.
33. (original) The article of manufacture of claim 32, wherein the article of manufacture is selected from a bar, a wire, a tube, a surgical implant device, a

component for a surgical implant device, an implantable defibrillator, a component for an implantable defibrillator, an implantable pacemaker, a component for an implantable pacemaker, a pacing lead, and a cardiac stent.

34. (original) The article of manufacture of claim 32, wherein the article of manufacture is one of a bar and a wire, and qualifies for use in surgical implant applications under ASTM standard specification F 562.

35-52. (cancelled)

53. (new) The alloy of claim 1, consisting of:
at least 20 weight percent cobalt;
32.7 to 37.3 weight percent nickel;
18.75 to 21.25 weight percent chromium;
8.85 to 10.65 weight percent molybdenum;
less than 30 ppm nitrogen;
less than 0.7 weight percent titanium;
at least one of at least 0.05 to 0.15 weight percent aluminum, at least 5 to 20 ppm calcium, at least 5 to 50 ppm magnesium, and at least 5 to 50 ppm cerium;
no greater than 1.05 weight percent iron;
no greater than 0.035 weight percent carbon;
no greater than 0.18 weight percent manganese;
no greater than 0.17 weight percent silicon;
no greater than 0.020 weight percent phosphorus;
no greater than 0.015 weight percent sulfur;
no greater than 0.020 weight percent boron; and
incidental impurities,
wherein the alloy includes generally spherical oxide inclusions and is substantially free of titanium nitride and mixed metal carbonitride inclusions.